

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) ~~Etching~~ An etching medium for the etching of silicon surfaces and layers, ~~characterised in that~~ wherein the etching medium is a thickened, alkaline liquid.
2. (Currently Amended) ~~Printable~~ An etching medium according to Claim 1, ~~characterised in that it is an~~ wherein said etching paste which comprises
  - a. at least one solvent
  - b. thickeners and optionally
  - c. additives, ~~such as antifoams, thixotropic agents, flow-control agents, deaerators and adhesion promoters,~~ and wherein said medium is effective at temperatures ~~as low as~~ from 70 to 150°C and/or can, ~~if desired,~~ be activated by the input of energy and said etching paste is printable.
3. (Currently Amended) ~~Etching~~ An etching medium according to Claim 1, ~~characterised in that it comprises,~~ further comprising as etching component, an organic or inorganic base in a concentration of from 2 to 50% by weight, ~~preferably from 5 to 48% by weight,~~ based on the total amount.
4. (Currently Amended) ~~Etching~~ An etching medium according to Claim 3, ~~characterised in that it comprises,~~ as wherein said etching component, ~~at least one component selected from the group consisting of~~ is sodium hydroxide, potassium hydroxide, ammonia, ethanolamine, ethylenediamine, tetraalkylammonium hydroxide or one of the ethylenediamine/ pyrocatechol ~~and~~ or ethanolamine/gallic acid mixtures.
5. (Currently Amended) ~~Etching~~ An etching medium according to Claim 2, ~~characterised in that it is a~~ wherein said solvent is selected from the group consisting of water, isopropanol, diethylene glycol, dipropylene glycol, polyethylene glycols, 1,2-propanediol, 1,4-butanediol, 1,3-butanediol, glycerol, 1,5 pentanediol, 2-ethyl-1-hexanol, ~~or mixtures thereof, or selected from the group consisting of~~ acetophenone, methyl-2-

hexanone, 2-octanone, 4-hydroxy-4-methyl-2-pentanone, 1-methyl-2-pyrrolidone, ethylene glycol monobutyl ether, ethylene glycol monomethyl ether, triethylene glycol monomethyl ether, diethylene glycol monobutyl ether, dipropylene glycol monomethyl ether, carboxylic acid esters, ~~such as [2,2-butoxy(ethoxy)]ethyl acetate, propylene carbonate~~ as such or in a mixture in an amount of from 10 to 90% by weight, ~~preferably in an amount of from 15 to 85% by weight,~~ based on the total amount of the medium.

6. (Currently Amended) ~~Etching~~ An etching medium according to Claim 2, ~~characterised in that it comprises a~~ wherein said thickener ~~selected from the group consisting of~~ is hydroxyalkylguar, xanthan gum, cellulose and/or ethyl hydroxypropyl or hydroxyethylcellulose, carboxymethylcellulose, sodium carboxymethylhydroxyethylcellulose, homopolymers or copolymers based on functionalised vinyl units of acrylic acid, acrylates ~~and~~ or alkyl methacrylates (C<sub>10</sub>-C<sub>30</sub>), individually or in a mixture in an amount of from 0.5 to 25% by weight, ~~preferably from 1 to 10% by weight,~~ based on the total amount of the etching medium.
7. (Currently Amended) ~~Etching~~ An etching medium according to Claim 3, ~~characterised in that it comprises additives selected from the group consisting of antifoams, thixotropic agents, flow-control agents, deaerators and adhesion promoters~~ wherein said additive is a thixotropic agent, a flow-control agent, a deaerator or an adhesion promoter in an amount of from 0 to 2% by weight, based on the total amount.
8. (Currently Amended) ~~Process A~~ A process for the etching of silicon surfaces and layers, ~~characterised in that an~~ wherein said etching medium according to Claim 1 is applied over the entire area or in accordance with the etch structure mask specifically only to the areas of the surface where etching is desired and is removed again after an exposure time of from 30 s to 5 min.
9. (Currently Amended) ~~Process A~~ A process according to Claim 8, ~~characterised in that an~~ wherein said etching medium acts at a

temperature in the range from 70 to 150°C and/or, if necessary, is activated by the input of energy.

10. (Currently Amended) ~~Process~~ A process according to Claim 9, ~~characterised in that an~~ wherein said etching medium is activated by exposure to heat (IR lamp, hotplate).
11. (Currently Amended) ~~Process~~ A process according to Claim 8, ~~characterised in that an~~ wherein said etching medium is applied to the surface to be etched by a screen, template, pad, stamp, ink-jet or manual printing process or by a dispensing technique.
12. (Currently Amended) ~~Process~~ A process according to Claim 8, ~~characterised in that an~~ wherein said etching medium is rinsed off using a solvent or solvent mixture when the etching is complete.
13. (Currently Amended) ~~Use of an etching medium according to Claim 4 in~~ A method of etching photovoltaics, semiconductor technology, high-performance electronics ~~and for the production of~~ , photodiodes, circuits, ~~or electronic components~~ comprising applying an etching medium according to claim 1 to the surface of said photovoltaic, semiconductor technology, high-performance electronic, photodiode, circuit, or electronic component
14. (Currently Amended) ~~Use of an etching medium according to Claim 4~~ A method for the etching of silicon surfaces and layers for isolation of the pn transition in solar cells comprising applying an etching medium according to claim 1 to the surface of said silicon or a layer for isolation of the pn transition in a solar cell.
15. (Currently Amended) ~~Use of an etching medium according to Claim 4~~ A method for the etching of silicon surfaces and layers for the production of a selective emitter for solar cells comprising applying an etching medium according to claim 1 to the surface of said selective emitter for a solar cell.
16. (Currently Amended) ~~Use of an etching medium according to Claim 4~~ A method for the etching of silicon surfaces and layers of solar cells

for improving the antireflection behaviour comprising applying an etching medium according to claim 1 to the surface of said silicon or layer of a solar cell for improving the antireflection behaviour.

17. (Currently Amended) ~~Use of an etching medium according to Claim 4~~ A method for the etching of silicon surfaces and layers in a process for the production of semiconductor components and circuits thereof comprising applying an etching medium according to claim 1 to the surface of said silicon or layer in a process for the production of a semiconductor component and circuit thereof.
18. (Currently Amended) ~~Use of an etching medium according to Claim 4~~ A method for the etching of silicon surfaces and layers in a process for the production of components in high-performance electronics comprising applying an etching medium according to claim 1 to the surface of said silicon or a layer in a process for the production of a component in high-performance electronics.
19. (New) An etching medium according to claim 5, wherein said solvent is from 15 to 85% by weight based on the total amount of the medium.
20. (New) An etching medium according to claim 5, wherein said carboxylic acid ester is [2,2-butoxy(ethoxy)]ethyl acetate or propylene carbonate.
21. (New) An etching medium according to claim 2, wherein said additive is an antifoaming agent, a thixotropic agent, a flow-control agent, a deaerator or an adhesion promoter.
22. (New) An etching medium according to claim 3, wherein said organic or inorganic base has a concentration of from 5 to 48% by weight, based on the total amount.
23. (New) An etching medium according to claim 6, wherein said thickener is from 1 to 10% by weight, based on the total amount of the etching medium.